MISSOURI BOTANICAL GARDEN
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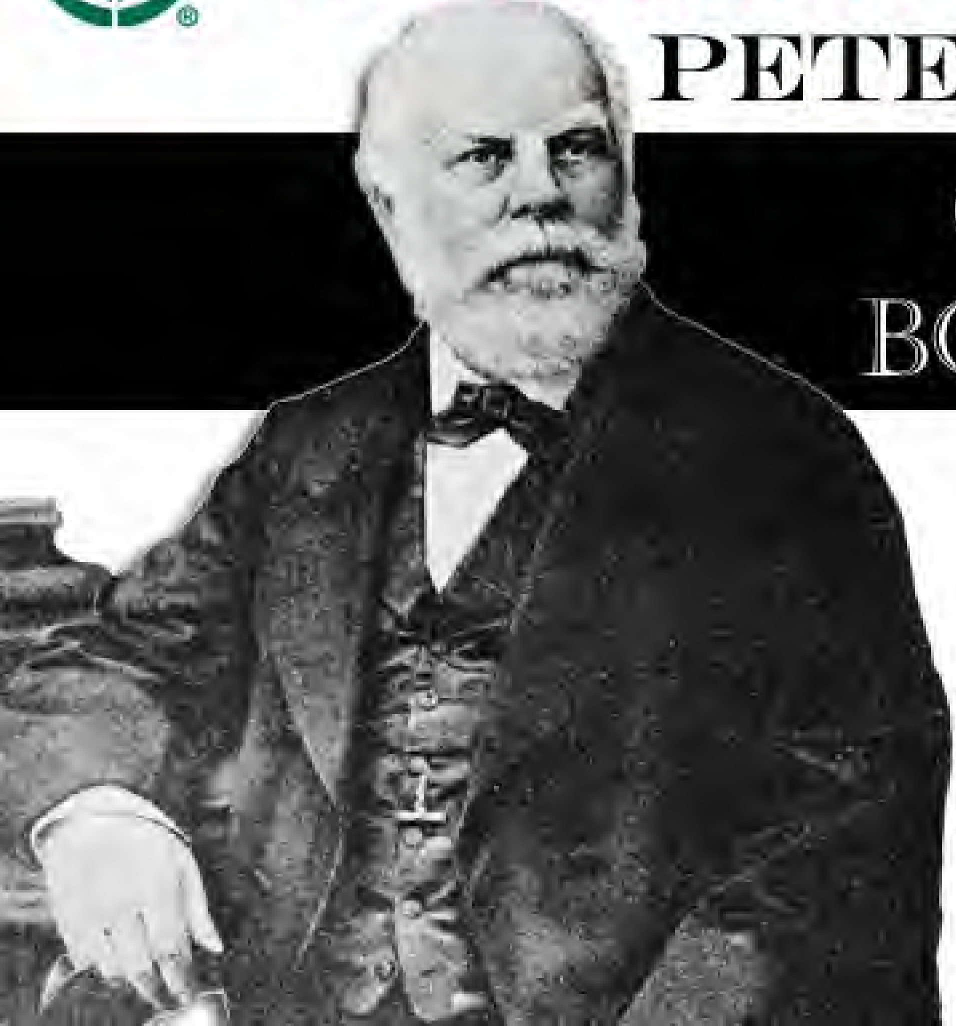

GEORGE ENGELMANN BOTANICAL NOTEBOOKS

Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Ephedra

Watson Am. Acad. 14 p. 299 (1879)

814-890

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H. B. Fr. 1825

At Kew Sept. 1869

Ephedra alata to be got from Kralik & Cosson.

Ephedra St Diego, Calif. Nuttall — large fruit, enveloped in 10 or 12 scales
Fremont seems to have coll. the same 1844 — No 290

E. trifurcata Torrey, coll. Wright is also here

E. Americana, Cotopaxi, has only 2 pair of scales under fruit

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~~1. [illegible] 1288 Sierra Madre Saltillo Palmer.~~ aspera

2. 1290. north of Monclova pedunc

~~3 1291 Texas edible fruit~~ pedunc

4 1292 Rio Frio antisyph

5 Rio Frio fruit sessile, 1-seeded ~~antisyph~~

~~6 Mojave Desert Parry~~ nevadensis

7 variabilis 249 Utah 1874 oxycarpa

8 Torreyi Parry 250 Utah 74 Torreyi

9 trifurca Agua Caliente Parry trifurca

10 ~~antisyphilit.~~ Saltillo aspera

11 antisyph? Rusby Arizona 397 oxycarpa

12 Californica 2-seeded Parry californ

13 252 Lemmon Phoenix oxycarpa

14 El Paso Vasey variabilis?

15 Frontera Bigelow variabilis?

Dr. George Engelmann

16 Wright 1883 = p.p. Torrey ~~Torreyi~~

17 " " " Torreya ? variabilis

18 Bigelow El Paso " Torreyi

2 sorts of seeds

1 seeded

1.10 E. aspera

4.5 E. antisyphilitica edible 1 seeded

2.3 E. pedunculata edible 2-seeded

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Ephedra Eichler Diagram p. 71 (1875)

2–3 inner pair of bract scales of ♀ become a red, fleshy fruit covering

Pistil ~~of~~ (Fruchtknoten) exterior utriculus consists of a pair of leaf-organs alternating with the last pair of bracts

Integument, protruded into the tube [illegible]

Ephedra Benth. & Hook. Gen III, p. 418 (1880)

utriculus exterior carnosulus, interior membranaceus in tubulum exsertum productus

flores ♀ singuli vel gemini "terminales" (sic)

Čelakovsky (Kritik der Ansicht d. Fruchtschuppe 1882)

p. 57 seq. Gnetaceae are closely related to Taxaceae on account of the terminal ovule, the external utricle must be a carpellary organ (trachea turned inwardly) (pistil or carpel without style!); (the Arillus is wanting.) It is not, as Eichler supposes a perigon

p. 58. the 2 flowered inflorescence of some Ephedra corresponds with the 2 fl. infl. of Torreya

p. 59 The external utricle ~~integument~~ of Gnetaceae is a pistil? (Fruchthülle) composed of 2 carpels [but my monstrosity?] which indicates a single carpel scale

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Stand mit dem Stand an andern Orten, wie ich solche im Republican finde, u. finde, daß mein Barometer immer 3/10 bis 4/10 Zoll niedriger ist, als der niedrigste Stand anderswo, St. Louis eingeschlossen.

Hier bist du jederzeit gleich willkommen. Ich habe ja keine andern Aufgaben mehr im Leben, als das bischen Zeit todtzuschlagen, das im Buch des Schicksals mir noch zu Gute geschrieben ist. Die Mittel, dies mit Anstand zu thun, sind mir spärlich zugemessen. Je eher du kommst, je länger du bleibst, je öfter du deinen Besuch wiederholst, um so lieber ist es mir u. uns Allen

June 28 1882

Yes, in Texas, antisyphilitic fide Palmer × pedunculate

We have no Ephedra with pulpy coating like the Oldworld E fragilis & E vulgaris

In most Ephedra the male scales are united; in the Old world species they are all or mostly all fertile, i. e. bear a flower

In many American species the lower scales are empty

In E. alata of Africa etc and in the American Calif. Torreyi & trifurca & a few others the male scales are contracted at base and nearly free. or S. American

No European species are ternate, but 3 or 4 West American species are ternate

I have seen no American species with pistil bearing male aments. In Europe only forms of fragilis (campylopoda) though others are indicated

Dec 1882

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Rhexia Mariana

Dear Doctor.

Would you kindly tell me the name of this plant. I fear however it is too withered to be recognizable. Mr Morley found it near Little Rock.

Yours sincerely

Mary

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Ephedra   June 24 1882

all ours dioecious

A. Leaves in pairs & fruitscales

(in No 8 in pairs and 3s)

a fruitscales especially the inner ones connate 1/2 or more becoming fleshy

1 E. pedunculata Eng (E. antisyphilitica in part, Watson 2 fr.

2 E. antisyphilitica C. A. Meyer ~~less than 1/2 connate~~ 1. fr

b — connate only at base 3d – or 4th

a.4. E. Andina & Americana 2 fruit

5 E. nevadensis

c — free at base

fruitscales inner ones not connate, often contracted into approaching a short or broad stipe

6 E. oxycarpa in fruitscales not contracted

~~E. variabilis (often in 3s)~~

inner fruitscales contracted at base

7 E. ~~aspera~~ aeruginosa

8 E. variabilis

B Leaves always in 3s fruitscales the same and more or less contracted into a broad stipe

9 E. Californica stipe broad & short, fruit obtuse-globose

10 E. spinosa (Parish) 1 seed   1 seed

11 E. Torreyana Watson in part 3 seeds

12 E. ~~Californica~~ trifurca Torr

DC Prodr 16^2 p. 352
Em. II C. p. 253

B & Hook III p. 418

omnes floriferae!

perianthium ♂, in axillis bractearum [infim. plerumque sterilis] varius
[primarium & secundarium?]

♀ ovuli nucleus integumentis 2 perviis inclusus, interior in tubulum exsertum [micropylum] productus.

flos unicus terminalis s. duo [axillares!]

Torr. Bot Bound. 207

Bot Whippl. 140 (only locality given) vol IV R R Rep

Bot Pope 175 not worth much

Watson in King Rep. 328   W. in Proc Am Acad 14.299 (1879)

Bot Calif 2.108

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GRAPE
VINES
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SPECIALTY

BUSHBERG GRAPE NURSERIES.
VINEYARDS AND ORCHARD
OF
BUSH & SON & MEISSNER,
City Office, ISIDOR BUSH & CO., St. Louis, Mo.
314 ELM STREET, S. E. CORNER FOURTH.

Bushberg, Jeff'n Co., Mo., June 17th 1882

Dr Geo Engelman

Sehr geehrter Herr!

Da Sie so gütig sind mich den Tag bestimmen zu lassen, an welchem Sie uns, resp. unsere Reben, besuchen wollen, so erlaube ich mir Donnerstag dieser Woche, den 22', zu bezeichnen, damit ich das Vergnügen haben könne anwesend zu sein. Der Zug geht 7.42 (City time 7.50) vom Union Depot ab, und fährt um 3.30 P.M. ungefähr von Bushberg zurück nach St Louis. Ich werde Sie daselbst, in Bushberg, bei Ankunft des Zuges erwarten; vorausgesetzt daß das Wetter günstig ist. Sollte Ihnen jedoch ein anderer Tag bequemer sein, so bitte ich Sie es mich wissen zu lassen & ich werde mich darnach einrichten.

Ergebenst & Hochachtungsvoll

Isidor Bush

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Anatomy

820-2

	„	3	16	„
ur de Cardinal. Deep red, minutely sprinkled with et	„	2	8	„
ur ponceau. Bright red, shaded with violet	„	1	4	10
oisi royal. Fine scarlet.	„	2	8	„
eau rouge (*Monument*). Carmine red.	„	2	9	8
Brançon. Deep glossy red	„	2	12	„
de Malakoff. Large, scarlet red	„	2	9	8
de Tholl blanc. (FLORE, XII, 87). Satiny white	„	4	28	„
— **cramoisi**. Crimson	„	2	8	„
— **écarlate** (FLORE, XII, 87). Dazzling scarlet	„	2	9	8
— **jaune** (FLORE, XII, 87). Lemon yellow	„	2	13	8
— **rose** (FLORE, XII, 87). Milky white changing to the most beautiful rose.	„	2	12	„
— **vermillon**. Lively vermilion	„	2	9	8
de Moscou. Deep scarlet.	„	5	36	„
otmeester. Magnificent scarlet red.	„	2	8	„
otmeester blanc. Handsome milky white	„	2	13	8
t van Delft. Pure white	„	2	8	„
st van Vondel. Enormous, deep blood red, shaded with hite	„	2	13	8
belle alliance. Of good form, dazzling scarlet	„	2	8	„
précieuse. Large and of fine form, beautiful rose	„	2	9	8
Reine Blanche. Very delicate pink	„	1	6	6
matelas. Of very good form, beautiful rose	„	4	28	„
lière. Very fine violet, beautiful.	„	2	8	„
ul Moreels. Of very good form, deep red	„	1	6	6
x alba. Pure white	„	2	9	8
geon blanc. Of pretty form, pure white.	„	2	9	8

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— „ 50 — 17 — — — . .
— „ 26 — 13 — — — . .

2nd SERIES.

EARLY SINGLE-FLOWERED TULIPS WITH BORDERED (*BICOLOURED*).

N°	Height in centim.	
94.	0,25	**Archiduc d'Autriche.** Brown, bordered with yellow . .
21.	0,30	**Brutus.** Brown, edged with orange . . . .
140.	0,30	**Caïman pourpre.** Deep violet purple, slightly edged with g
61.	0,20	**Duc de Berlin.** Red, bordered with lemon yellow . . .
81.	0,30	**Duc d'Orange.** Orange, bordered with lemon yellow . .
70.	0,20	**Duc major.** Red, bordered with yellow. . . . .
76.	0,20	**Duc de Tholl rouge bordé de jaune citron** (FL., XII, 87) Red, bordered with lemon yellow . . . .
60.	0,30	**Duc Voorhelm.** Red, edged with shiny golden yellow . .
78.	0,30	**Duchesse de Parme.** Bright red with broad orange band magnificent flower, of fine form . . . .
93.	0,30	**Duchesse Duc.** Brown, bordered with yellow. . . . .
96.	0,30	**Eléonore.** Violet grey, slightly bordered with grey . . . .
145.	0,30	**Keizerskroon.** Large flower, bright red, edged with lemon yello

E. pedunculata & antisyphilitica have fleshy, edible fruit (scales!)

very similar — perhaps identical?

E. pedunculata always with 2 fruits — 3–4 pair of scales
inner scales connate more than 1/2
5–8 stiped anthers

E. antisyph. 1 fruit.
inner scales connate 2/3 — pair of scales
3–5 short stipitate or subsessile anthers

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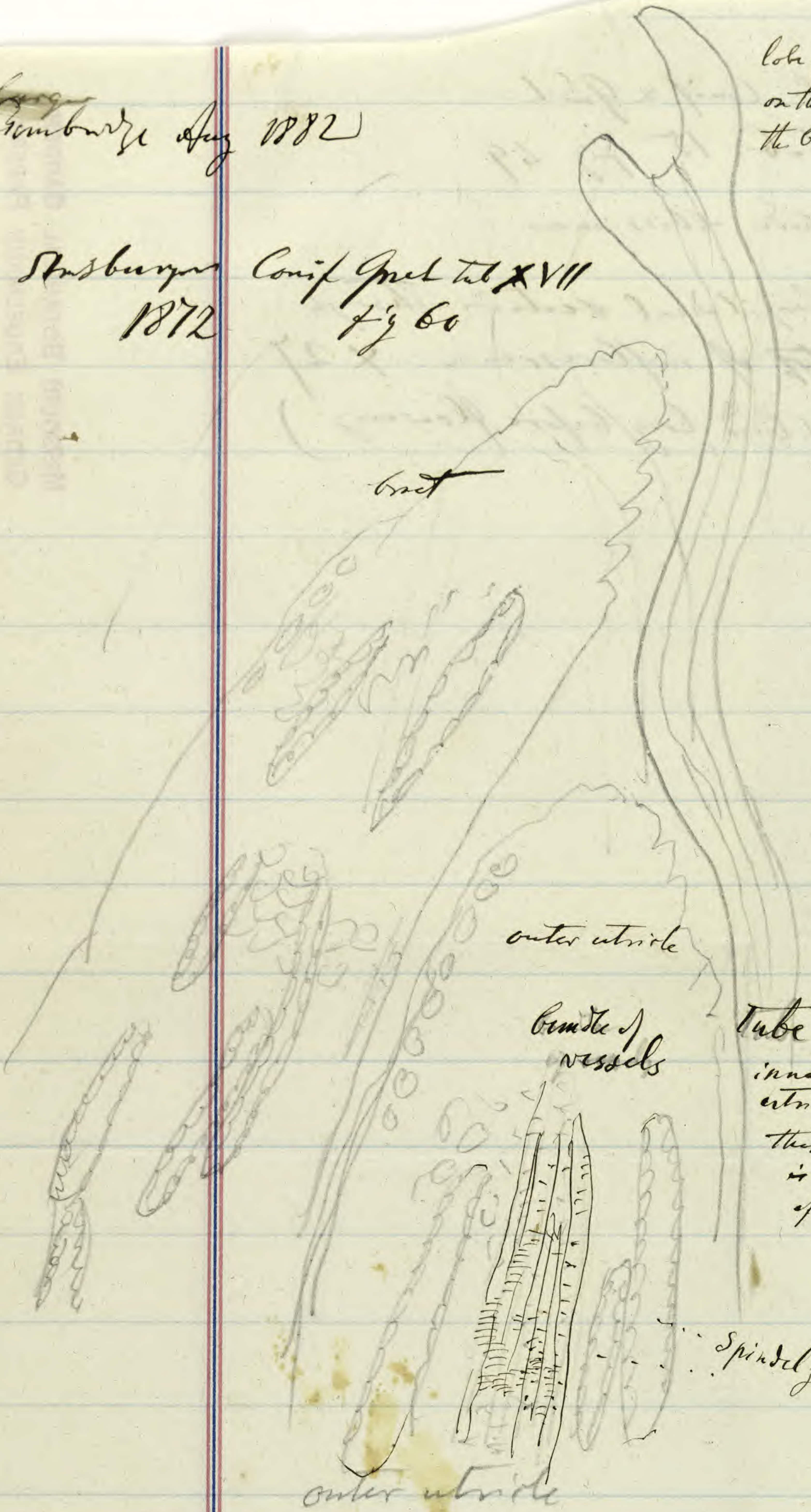
~~Strasburger~~ Cambridge Aug 1882

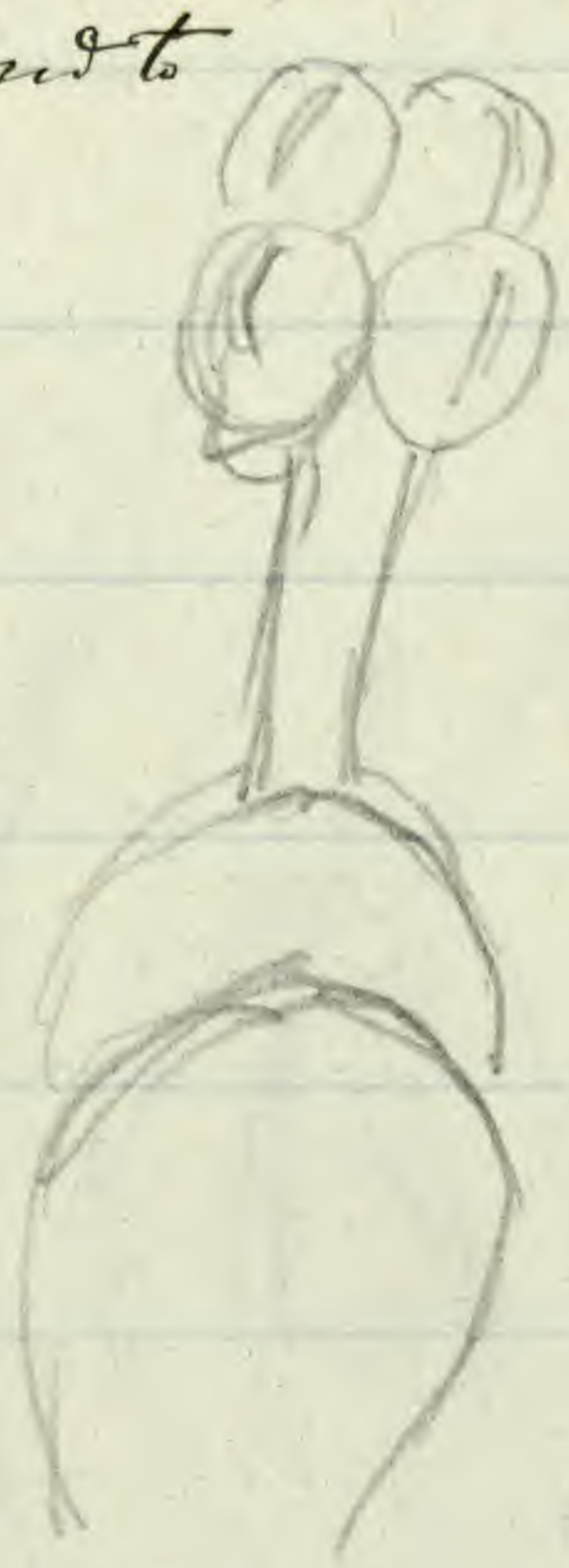
Strasburger Conif. Gnet. tab XVII fig 60
1872



this integument is only 2 layers of cells thick

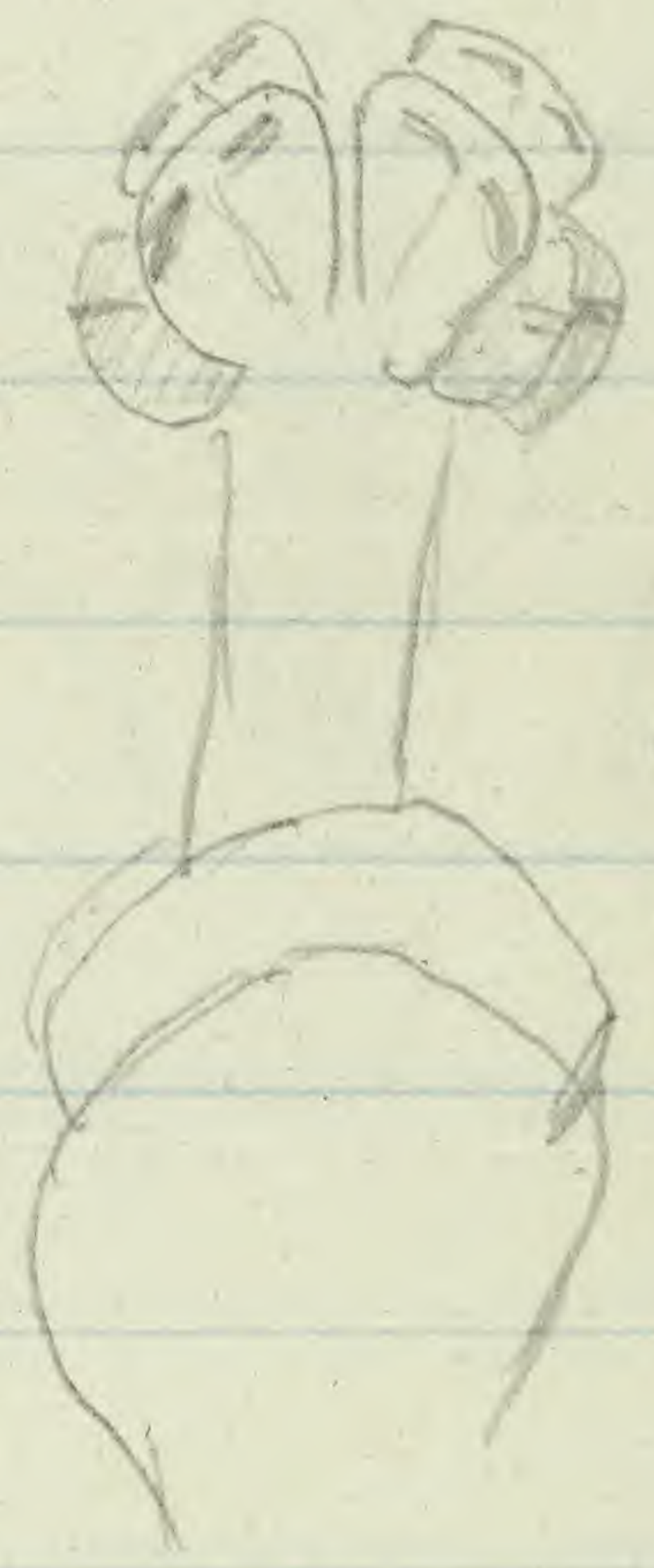
lobe of tube always in Ephedra on the side opposed to the bract.

Ephedra altissima x 100.

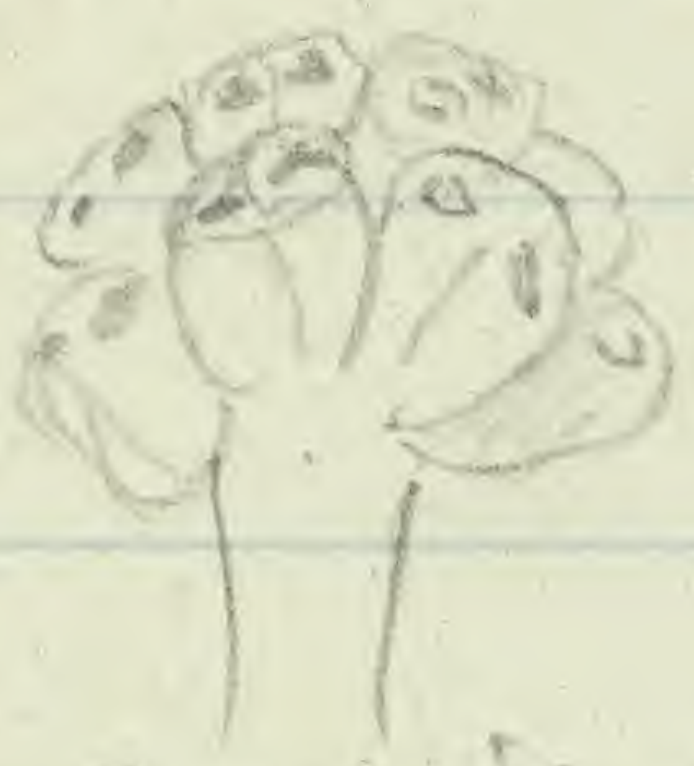


E. altissima x 8

bianthering aments
2 anthers



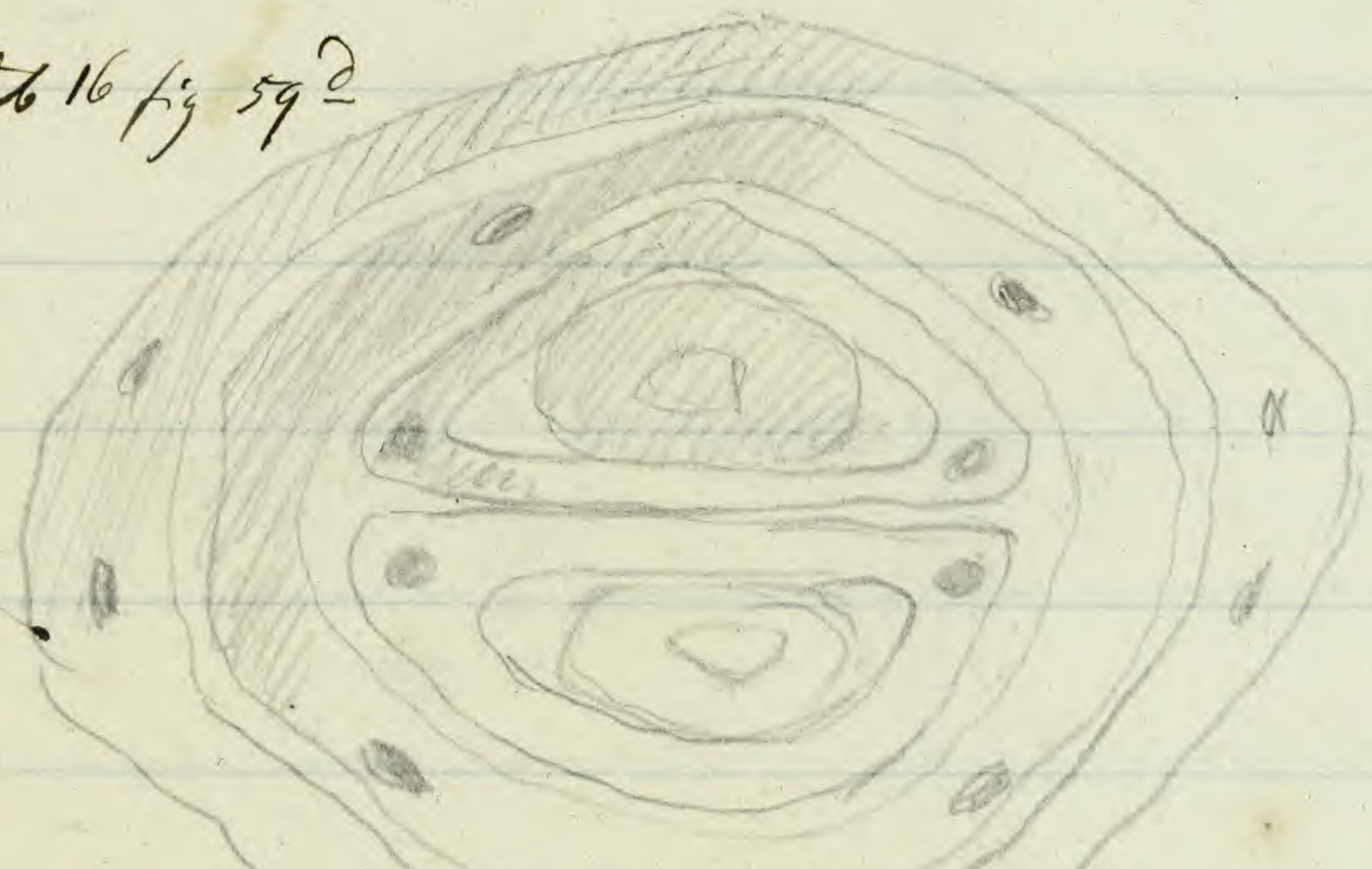
E. campylopoda
x 27 [?]
6 sessile anthers



x 10

8 sessile anthers
E. monostachya

tab 16 fig 59^d^



E. campylopoda cross section showing 2 bundles in each of the four vaginal Bracts and 2 in each outer utriculus

x 12

Strasb. p. 234 the outer integument is developed just as in Coniferae and especially Taxineae from a two-leaved origin, immediately connate at the edges, forming one entire, two-lipped utricle; the carpel of Chenopod, Polygon etc originates in the same manner

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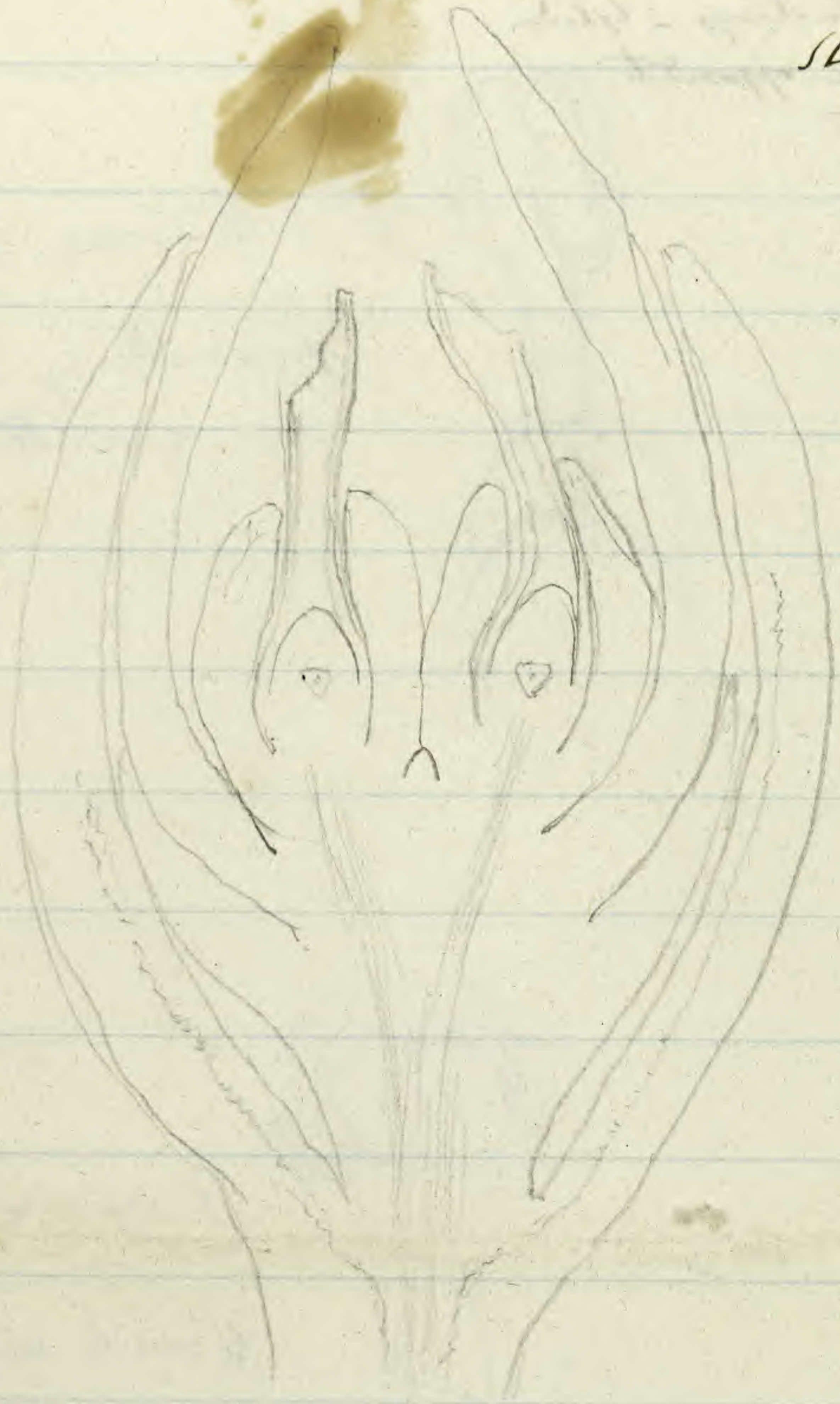

Strasb. Conif & Gnet
tab 15 fig 49

Ephedra altissima

Longitudinal section through top of inflorescence × 27 (bud, long before flowering)

from Strasburger
Cambridge Aug 1882

This cover, with Sheets 814 – 910 was among Coniferae & the sheet numbers are of that series.

Ephedra

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Anchusa arvensis M.B.
Lycopsis arvensis L.
Nonea arvensis Cand.

Spr I, 560
R II, 158

Europ, Amer. bor.

Fr. 1820

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Campanula ucranica Spr.
ad C. trachelioidem M.B.

Spr. I, 730

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